

### **Abstract**

This invention relates to a casting sand heating apparatus. The purpose of this invention is to provide a casting sand heating apparatus which can heat sand up to 300 °C or higher with high energy efficiency, lower capital investment and lower operating costs. This apparatus is comprised of a furnace body, sand inlet, smoke discharge and dust removing port, hearth and sand outlet. The sand inlet is arranged at the top of the furnace body, the combustion mouth is arranged in the lower part of the furnace body. Additionally, the heat exchange apparatus is arranged in the middle part of the furnace body. This invention can be used for the heating and baking of fresh and used casting sand.